

AMENDED CLAIM SET:

1. - 10. (cancelled).

11. (previously presented) A sample support comprising

at least one sample receiving chamber for a sample liquid, a distributor channel for sample liquid, connected to said at least one sample receiving chamber, with at least one such distributor channel extending from said at least one sample receiving chamber, at least one reaction chamber comprising a cavity which is delimited by surfaces and is entered by an inflow channel branched off said at least one distributor channel, and a venting opening for each reaction chamber,

wherein each venting opening of each reaction chamber has a connecting channel extending therefrom and that a plurality of such connecting channels are arranged to enter respectively one venting collecting channel comprising a venting collecting opening,

each distributor channel and each inflow channel being dimensioned to wherein, in each reaction chamber, said surfaces in the entrance region of the inflow channel which are provided for delimiting said cavity, are configured as a means for generating a capillary force causing the sample liquid to flow from the inflow channel into the reaction chamber exclusively by capillary force.

12. (previously presented) The sample support according to claim 11, wherein each connecting channel and/or each venting opening includes a means for preventing a further flow of sample liquid effected by capillary forces.

13. (currently amended) The sample support according to claim 12, wherein said capillary-force prevention means are arranged in the entrance regions of the connecting channels into the venting collecting channels.

14. (previously presented) The sample support according to claim 12 or 13, wherein each of said capillary-force prevention means is provided as a widened portion of a connecting channel or venting opening, which widened portion respectively comprises a side surface with a connecting channel entering thereinto, and that the entrance region of the portion of the connecting channel extending from the reaction chamber is not delimited in the widened portion by any corner regions or only by such a small number of corner regions with rounding radii generating a capillary force that the flow of the sample liquid in the entrance region is prevented.

15. (currently amended) The sample support according to claim 14, wherein each venting collecting channel is arranged to extend from a reagent receiving chamber for receiving a reagent liquid, with the flow of the reagent liquid performed via the venting collecting channels by capillary forces generated within the venting collecting channels, and

that, within the entrance region of each venting collecting channel into the widened portions and/or within the entrance regions where the portions of the connecting channels extending from the venting collecting channels enter the widened portions, a means is arranged for generating a capillary force for filling the widened portions.

16. (previously presented) The sample support according to claim 15, wherein each reagent receiving chamber comprises a bottom surface and side surfaces extending at an angular orientation thereto, and that the venting collecting channel assigned to a reagent receiving chamber is arranged to enter the reagent receiving chamber above said bottom surface, and that a means for generating a capillary force to cause reagent liquid to flow from the reagent receiving chamber into the venting collecting channel is arranged between said entrance and said bottom surface.

17. (previously presented) The sample support according to claim 16, wherein said capillary-force generating means is formed as an outflow groove having a cross-sectional area and shape suited to generate a flow of the reagent liquid by capillary force.

18. (previously presented) The sample support according to claim 17, wherein said outflow groove is provided as a trough formed in a side surface.

19. (previously presented) The sample support according to claim 17, wherein said outflow groove is provided as a transition region between two adjacent and mutually angled side surfaces, the transition region having a rounding radius sufficiently small to generate capillary forces causing a flow of the reagent liquid.

20. (currently amended) The sample support according to claim 14, wherein each venting collecting channel is arranged to extend from a reagent receiving chamber for receiving a reagent liquid, and that, within the entrance region of each venting collecting channel into the widened portions and/or within the entrance regions where the portions of the connecting channels extending from the venting collecting channels enter the widened portions, a means is arranged for generating a capillary force for filling the widened portions.

21. – 23. (cancelled).

24. (previously presented) A sample support, comprising
at least one sample receiving chamber for a sample liquid,
a distributor channel for sample liquid, connected to said at least one sample receiving chamber, with at least one such distributor channel extending from said at least one sample receiving chamber,
at least one reaction chamber comprising a cavity which is delimited by surfaces and is entered by an inflow channel branched off said at least one distributor channel, wherein

each reaction chamber comprises a bottom surface and a side surface extending at an angular orientation to the bottom surface, and a venting opening for each reaction chamber,

and valves arranged in each distributor channel and/or the venting openings of the reaction chambers or downstream thereof for causing a controlled flow of the sample liquid through the distributor channel or channels into reaction chamber or chambers,

wherein each valve comprises a burst film and/or a porous hydrophobic insert and/or a hydrophobic inner wall and each valve can be switched hydraulically and pneumatically, respectively, from a closed condition into an open condition by external control and/or by application of pressure onto the sample liquid or the as bearing against the valve and each distributor channel and each inflow channel is dimensioned to have the liquid transport through the distributor and inflow channels effected by capillary forces, wherein, in each reaction chamber, said surfaces in the entrance region of the inflow channel which are provided for delimiting said cavity, are configured as a means for generating a capillary force causing the sample liquid to flow from the inflow channel into the reaction chamber exclusively by capillary force, and wherein said capillary force generating means is realized by a sufficiently small rounding radius in the transition region between said side surface and said bottom surface to cause sample liquid to flow along said transition regions under the effect of capillary forces.

25. – 42. (cancelled).

43. (new) A sample support comprising

at least one sample receiving chamber for a sample liquid, a distributor channel for sample liquid, connected to said at least one sample receiving chamber, with at least one such distributor channel extending from said at least one sample receiving chamber, a plurality of reaction chambers each comprising a cavity which is delimited by surfaces and is entered by an inflow channel branched off said at least one distributor channel, and a venting opening for each reaction chamber,

wherein each venting opening of each reaction chamber has a connecting channel extending therefrom and that a plurality of such connecting channels are arranged to enter respectively one venting collecting channel comprising a venting collecting opening,

each distributor channel and each inflow channel being dimensioned to wherein, in each reaction chamber, said surfaces in the entrance region of the inflow channel which are provided for delimiting said cavity, are configured as a means for generating a capillary force causing the sample liquid to flow from the inflow channel into the reaction chamber exclusively by capillary force.